

REMARKS

Amendments to the listed paragraphs have been made to correct minor editorial errors. Amendments to the table titles have been made to more clearly identify the data in the tables. No new matter has been added.

Claims 1-16 and 27-55 are pending. Claims 17-26 have been cancelled without prejudice. Claims 1, 7, 10, 14, 27, 31, 38, 41, 47, and 50 have been amended to remove unelected subject matter from the claims. Applicants reserve the right to prosecute subject matter withdrawn from consideration by cancellation or amendment in one or more continuation, continuation-in-part, or divisional applications.

THE RESTRICTION REQUIREMENT

In the Official Action, restriction under 35 U.S.C. §121 is required to one of the following groups of inventions:

I. Claims 1-16 and 27-55, drawn to isolated nucleic acids comprising a polynucleotide encoding a chitinase polypeptide, a vector comprising a polynucleotide encoding a chitinase polypeptide, a vector comprising a promoter operably linked to the polynucleotide, a plant comprising a recombinant expression cassette, and a method of enhancing plant resistance to fungus;

II. Claims 17-25, drawn to an isolated chitinase polypeptide; and

III. Claim 26, drawn to an antibody.

The Examiner contends that the inventions of Groups I through III are distinct. Additionally, the Examiner considers each nucleic acid or amino acid sequence contained in the Groups to be a distinct invention. Accordingly, Applicants are required to elect a single sequence in the elected Group to be searched and prosecuted in the instant application.

In order to be fully responsive, Applicants provisionally elect, with traverse, the invention of Group I, claims 1-16, 27-55, and SEQ ID NO:12 to prosecute in the present application without prejudice to prosecution of the subject matter of the non-elected Groups and sequences in subsequent applications.

With respect to the Examiner's further division of Groups I-III into a multitude of subgroups, each corresponding to one nucleic acid or amino acid sequence and the reasons stated therefore, Applicants respectfully traverse.

The claims of Group I encompass nucleic acids that are described in a number of ways. The claimed nucleic acids include i) nucleic acids of specific nucleic acid SEQ ID NOS (e.g., claim 10), ii) nucleic acids that hybridize to nucleic acids of specific nucleic acid SEQ ID NOS (e.g., claim 14), iii) nucleic acids that encode polypeptides of specific amino acid SEQ ID NOS (e.g., claim 7), and iv) nucleic acids that encode polypeptides that are a certain percent identity to polypeptides of specific amino acid SEQ ID NOS (e.g., claim 1). As such, Applicants believe that, upon election of Group I, it is impossible to separate the nucleic acid sequences from their encoded amino acid sequences in separate groups. Applicants respectfully request that provisionally elected SEQ ID NO:12 be joined with SEQ ID NO:11, the nucleic acid by which it is encoded, to be Examined in the present application.

Furthermore, assuming *en arguendo* that each pair of nucleic acid sequences and their encoded amino acid sequences represented a distinct and independent invention, Applicants submit that to search and examine the claims in Group I as they pertain to amino acid sequences SEQ ID NOS:12, 24, 30, 34, 38, 46, 48, 60, 62, 66, and 72 and the nucleic acids that encode them would not be a serious burden on the Examiner. A provisional election has been made to search SEQ ID NO:12 in the context of the elected claims. As such, the Examiner is required to search for nucleic acid molecules that encode a chitinase polypeptide that is at least 91% identical to SEQ ID NO:12 (see, e.g., claim 1). A sequence comparison has revealed that the amino acid molecules of SEQ ID NOS: 24, 30, 34, 38, 46, 48, 60, 62, 66, and 72 are closely related to SEQ ID NO:12 and fall within the claimed range of sequence identity. Any nucleic acids molecule that encoded SEQ ID NOS: 24, 30, 34, 38, 46, 48, 60, 62, 66, and 72 would necessarily encode a polypeptide that is at least 91% identical to SEQ ID NO:12 and thus be encompassed by the claims. Specifically, SEQ ID NOS:30 and 34 are 99% identical to SEQ ID NO:12; SEQ ID NOS:48, 60, and 72 are 95% identical to SEQ ID NO:12; SEQ ID NOS:46 and 62 are 94% identical to SEQ ID NO:12; SEQ ID NOS:38 and 66 are 93% identical to SEQ ID NO:12; and SEQ ID NO:24 is 92% identical to SEQ ID NO:12 (see Figure 1).

Because of the above-stated similarity between amino acid sequences, nucleic acids capable of encoding SEQ ID NOS: 12, 24, 30, 34, 38, 46, 48, 60, 62, 66, and 72 would

also be similar. In fact, a sequence comparison revealed that the nucleic acid molecules encoding SEQ ID NOS:29, 33¹; SEQ ID NOS:59, 61, 71²; and SEQ ID NOS:23, 37, 45, 47, 65³ are 99%, 96%, and 95% identical, respectively, to SEQ ID NO:11 (the nucleic acid molecule encoding the polypeptide of SEQ ID NO:12) (see Figure 2).

The M.P.E.P. § 803 (Eighth Edition, Incorporating Revision No. 2, May 2004) states:

If the search and examination of an entire application can be made without serious burden, the examiner must examine it on the merits, even though it includes claims to independent or distinct inventions.

Because of the sequence similarities, a search for nucleic acid molecules encoding an amino acid molecule that is at least 91% identical to SEQ ID NO:12 would necessarily encompass nucleic acid molecules encoding SEQ ID NOS: 24, 30, 34, 38, 46, 48, 60, 62, 66, and 72.

Thus, in view of M.P.E.P. § 803, the subject matter of the claims in Group I as they relate to SEQ ID NOS: 12, 24, 30, 34, 38, 46, 48, 60, 62, 66, and 72 should be searched and examined in the subject application. Accordingly, Applicants respectfully request that the Restriction Requirement Under 35 U.S.C. § 121 be modified and the instant claims be examined in one application.

CONCLUSION

It is believed that the elected claims are in condition for allowance. Early and favorable action by the Examiner is earnestly requested.

¹ SEQ ID NOS:29 and 33 encode polypeptides of SEQ ID NOS:30 and 34, respectively.

² SEQ ID NOS:59, 61, and 71 encode polypeptides of SEQ ID NOS:60, 62, and 72, respectively.

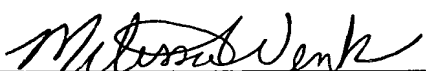
³ SEQ ID NOS:23, 37, 45, 47, and 65 encode polypeptides of SEQ ID NOS:24, 38, 46, 48, and 66, respectively.

AUTHORIZATION

No fee is believed due. However, the Commissioner is hereby authorized to charge any additional fees which may be required for consideration of this Amendment to Deposit Account No. 13-4500, Order No. 2119-4280.

Respectfully submitted,
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